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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,936	12/13/2004	Jin-Koo Chung	ABS-1670 US	6886
32605 7590 04/08/2008 MACPHERSON KWOK CHEN & HEID LLP 2033 GATEWAY PLACE SUITE 400 SAN JOSE, CA 95110				
EXAMINER				
VU, HUNG K				
ART UNIT		PAPER NUMBER		
2811				
MAIL DATE		DELIVERY MODE		
04/08/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/517,936

**Applicant(s)**

CHUNG ET AL.

**Examiner**

HUNG VU

**Art Unit**

2811

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date 2/15/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al. (PN 6,933,533, of record) in view of Laxman et al. (US 2005/0038276, of record) and further in view of Lin et al. (PN 6,372,661).

Yamazaki et al. discloses, as shown in Figure 6, an organic electroluminescent device comprising:

- a substrate (200);
- a thin film transistor formed on the substrate and having a gate insulating film, a gate electrode, and source/drain electrodes;
- a passivation layer (255,256) formed on the thin film transistor and the substrate
- a first electrode (260) electrically coupled to the thin film transistor;
- an insulating film (280) having a low dielectric constant formed on the first electrode and the substrate, the insulating film having an opening portion for exposing the first electrode;
- an organic electroluminescent layer (265) forming a base and a sidewall in the opening portion;
- a second electrode (266) formed on the organic electroluminescent layer.

Yamazaki et al. does not disclose the insulating layer is a chemical vapor deposition film.

However, Laxman et al. teaches in the abstract that CVD can be used to produce low dielectric constant thin films suitable for insulating layers in microelectronic device structures.

Paragraphs [0007] and [0003] teach that the lower dielectric constant insulator provides faster and more power efficient devices. It would have been obvious to use the low dielectric constant films as taught by Laxman et al. in the device of Yamazaki et al., in order to achieve the advantages desired by Laxman et al..

Yamazaki et al. and Laxman et al. do not disclose the thickness of the insulating film of about 1  $\mu\text{m}$  or more. However, Lin et al. discloses forming an insulating film with the thickness of about 1  $\mu\text{m}$  or more to improve the crack resistance of CVD material. Note Col. 2, lines 14-39 of Lin et al.. It would have been obvious to use the insulating films with the thickness taught by Lin et al. in the device of Yamazaki et al. and Laxman et al., in order to achieve the advantages desired by Lin et al..

Regarding claims 2, 3, 6, 7, 11 and 12, Yamazaki et al., Laxman et al. and Lin et al. disclose SiOC of dielectric constant less than 3.0 (Abstract and [0007]).

Regarding claims 4, 8, 9 and 13, although Yamazaki et al., Laxman et al. and Lin et al. do not teach the thickness and overlap, as that claimed by Applicants, however, absent any showing of criticality, specific dimensions of layer thickness and overlap would have been obvious to one having ordinary skill in the art at the time the invention was made to form the device of Yamazaki et al., Laxman et al. and Lin et al. having a desired dimensions in order to fabricate a

device having other features commensurate in size with the recited dimensions, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In general, smaller dimensions are desirable because small devices in general are desirable, but dimensions that are too small are difficult to fabricate.

### *Response to Arguments*

2. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vu whose telephone number is (571) 272-1666. The examiner can normally be reached on Monday to Thursday 6:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne A. Gurley can be reached on (571) 272 - 1670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Vu

March 29, 2008

/Hung Vu/

Primary Examiner